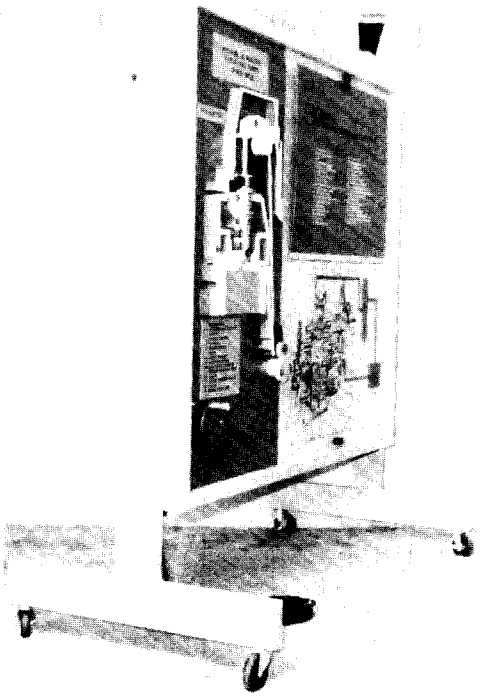

LVT7A1 CYLINDER AND FUEL INJECTOR TRAINER, DEVICE 16C79

TRAINING CATEGORY:

COMBINED OPERATIONS (Amphibious)

ORIGINATING AGENCY:

CMC

SECURITY CLASSIFICATION:

Device 16C79 is unclassified.

PURPOSE:

The purpose of the device is to demonstrate the operation of a Cummins Diesel Fuel Oil Injector. The mockup is designed four (4) times actual scale for ease of visibility in a classroom situation. It is intended to instruct the student in theory and principles of operation of the Cummins Fuel Oil Injector.

INTENDED USE:

The training device will be used to provide military personnel a basic understanding of the operation of a PTD Fuel Oil Injector Type G Fuel Pump and to instruct them in correct maintenance procedures.

FUNCTIONAL DESCRIPTION:

The training aid is a panel type device with a four (4) times actual size mockup of the cutaway cylinder chamber and fuel spray pattern from the injector displayed at the left side. To the right are two cutaway illustrations of the PT fuel pump assembly.

From each of these illustrations are shown illuminated fuel flow lines which go to silhouettes of the injector and the fuel tank.

The cutaway mockup of the fuel pump assembly located on the left of the face panel, contains a functioning mockup of the injector which is

manually controlled by use of a handwheel located below the identifying nomenclature. Yellow LEDs illuminate and pulse to indicate flow both in the drain area and as a spray pattern located below the plunger. The LED spray pattern from the injector nozzle will be activated by the position of the plunger as controlled through the linkage by the handwheel.

The center of the panel displays two detailed illustrations of the PTD Fuel Oil Injector Type G Fuel Pump. A flap covering the lower illustration contains nomenclature identifying components of the upper illustration. When the flap is raised, the underside lists nomenclature identifying components in the lower illustration.

To the right of the illustrations, lines showing fuel flow from the pump to silhouettes of the injector and fuel tank show activation by pulsing yellow LEDs. Simulated fuel flow is activated by use of a potentiometer switch at the bottom right of the illustrations.

The 3D components are fabricated of Lexan and the nomenclature and illustrations are silkscreened in black enamel.

The panel is supported by a welded aluminum stand mounted on braked casters for ease in moving to the demonstration site and to provide a stable device when the brakes are applied.

A 20 foot cable is attached to the trainer to give flexibility in locating the trainer at the demonstration site.

PHYSICAL INFORMATION:

Unit: One (1) - Panel Type Device

Size: 72" L x 78" H x 36" W at base Cabinet is 10 inches wide.

Weight: Approximately 50 pounds

POWER REQUIREMENTS:

5 amps of power at 115 VAC.

PUBLICATIONS FURNISHED:

An operation and maintenance guide, "LVT7A1 Cylinder and Fuel Injector Trainer", Device 16C79, NTEC, P-6035 (U)".

PERSONNEL:

Instructor: One (1)
Operator: Instructor or trained student
Trainees: 10 to 40 students

CONTRACT IDENTIFICATION:

Manufactured by Ben Lorenz Associates, Inc., Bedford Hills, NY 10507 under NAVTRASYSCEN Contract No. N61339-83-C-0025.

LOCAL STOCK NUMBER:

6910-LL-C00-6384